

A New Stoloniferous *Pinanga* from Peninsular Malaysia

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1. *Pinanga sarmentosa*
in its natural habitat.

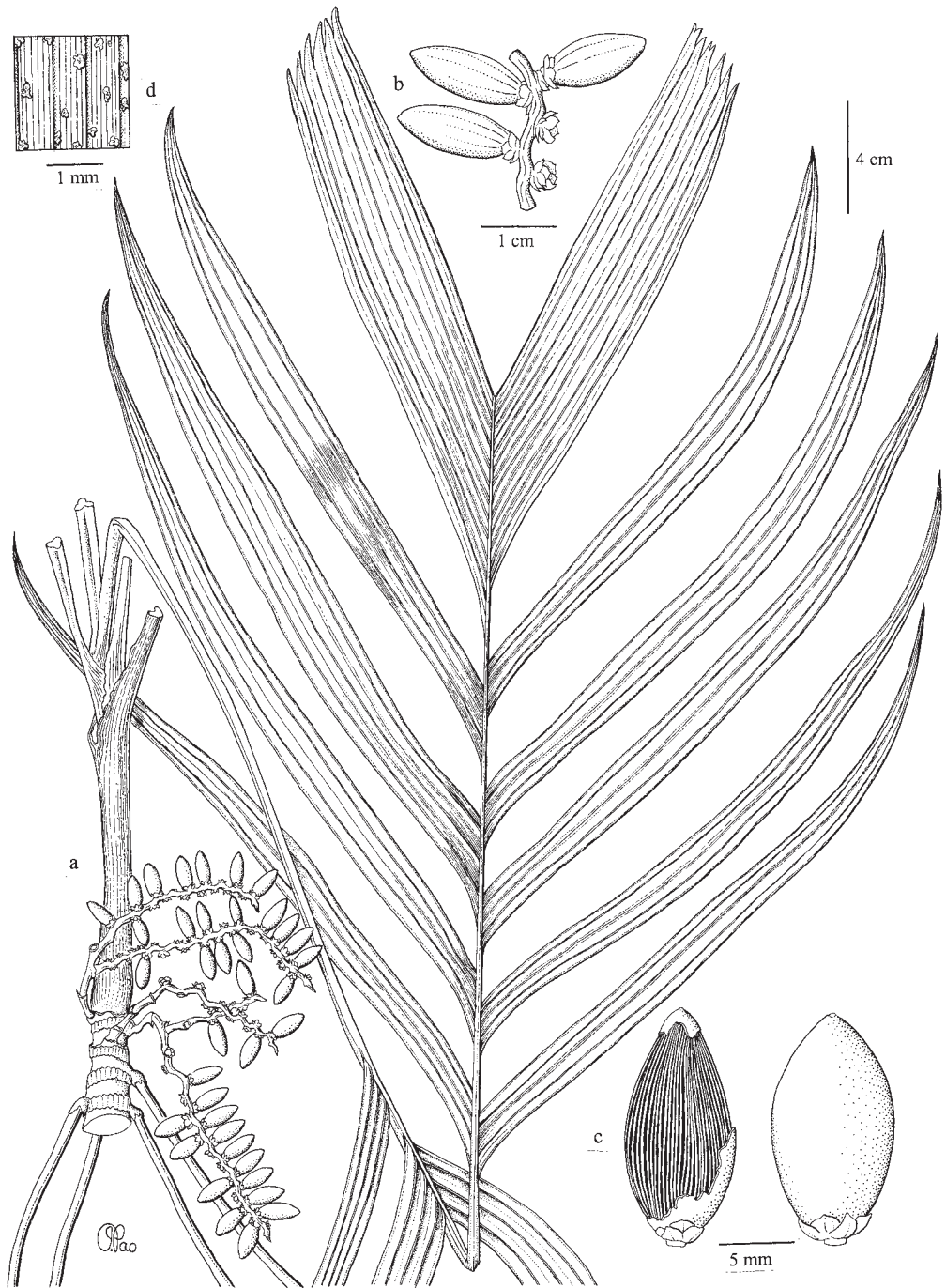
A new *Pinanga* from the Terengganu, Malaysia was discovered. This unusual species produces long stolons.



2. *Pinanga sarmentosa*. **a** habit; **b** stem with stolon. All drawn from L.G. Saw et al. FRI 48154, by Joseph Pao.

The palm flora of Peninsular Malaysia is relatively well worked out. Last year it came as a pleasant surprise when a collection team from the Kepong herbarium with visitors from the Fairchild Tropical Garden (Scott Zona and Carl E. Lewis) chanced upon this very unusual and elegant *Pinanga* from the Sungai Nipah Forest Reserve, Terengganu. In

Peninsular Malaysia, only two other species of *Pinanga* form stolons or have long-necked rhizomes – *P. riparia* Ridley and *P. johorensis* C.K. Lim & L.G. Saw (Lim 2001). Both of these species have stolons or rhizomes just beneath the soil or, if exposed, very close to the soil. These are also large plants, often exceeding 2 meters in height.



3. *Pinanga sarmentosa*. a stem with frond. b details of rachilla with fruits. c fruits, with pericarp removed in one fruit showing fibres. d. veins of frond. All drawn from L.G. Saw et al. FRI 48154, by Joseph Pao.

In the new species, the stolons run loosely along the forest floor, rooting occasionally at the nodes but mainly at the suckers where the new plantlets form (Fig. 1 & 2). One population of *Pinanga capitata* Becc. on Mount Kinabalu has been reported to form stolons similar to this (Dransfield, pers. comm). However, the Terengganu palm is

very different from *P. capitata*, which is a much larger species and has an inflorescence with many branches

Pinanga sarmentosa L.G. Saw sp. nov., *Pinanga tenacinervi* J.Dransf. affinis sed caule stolonifero, rachillis rubris, fructibus ellipsoideis c. 13 × 8 mm maturitate nigris vice rachillis viridibus, fructibus

fusiformibus c. 12×4 mm maturitate carmesinis differt. Typus: Malaysia, Terengganu, Kemaman, Sungai Nipah Forest Reserve, Sungai Nipah. L.G. Saw, S. Zona & C.E. Lewis FRI 48154 (Holotypus KEP; isotypi FTG, K, L)

Clustering, pleonanthic, short-stemmed stoloniferous palm with long runners forming colonies of widely spaced individual stems; stems stilt rooted, to c. 20 cm high; internodes 0.5–1.2 cm, 1.0–2.3 cm diam., nodal scars conspicuous; mature stolons 80–100 cm long, creeping above the forest litter, occasionally rooting at nodes, terminating with plantlets, internodes 5–9 cm long, 2–3 mm diam. Leaves 4–5 in crown, pinnate, 70–90 cm long (including petiole), neatly abscising; sheaths tubular, 11–15 cm long, covered with scattered dark reddish brown indumentum; crownshaft well defined up to 22 cm long, 1–1.5 cm diam.; petiole 35–55 long, 0.5 cm diam., channelled adaxially, rounded abaxially, covered with scattered dark reddish amorphous indumentum; rachis slightly curving under the weight of the frond, ridged adaxially, rounded abaxially and indumentum covering similar to the petiole; blade variously divided into 2–8-fold leaflets, slightly mottled, surface dull, typically terminal leaflets with 5–8 folds, proximal ones with 2–5 folds, leaflets with pointed apical margin; leaflets 5–7 pairs, terminal leaflets 16–26 cm long, 3–6 cm wide, proximal leaflets 25–35 cm long, 1.5–5 cm wide, individual folds 0.5–1.1 cm wide; lamina covered with scattered dark reddish amorphous indumentum on adaxial surface and glabrescent abaxially; transverse veinlets

inconspicuous, adaxial surface paler when dried. Infructescence infrafoliar, spreading in various directions, 9–12 cm long; prophyll not known; peduncle bright red, terete but slightly flattened, 2–2.5 cm long, 2–3 mm diam., densely covered with amorphous caducous translucent-white and reddish brown indumentum; peduncular bracts scale-like, (1)–2, if 2 then oppositely arranged, positioned mid-way on the peduncle; rachillae 2, rarely 3 bright red, rarely spicate, regularly zigzagging with fruits distichously arranged on the ridges of the folds, ca. 3 fruits/cm, densely covered with amorphous caducous translucent-white and reddish brown indumentum. Fruits green, maturing black, ellipsoid, c. 13×8 mm. Seed, 12×5 mm, endosperm ruminant. (Figs. 1–4).

SPECIMEN EXAMINED. Malaysia, Terengganu, Kemaman, Sungai Nipah Forest Reserve, Sungai Nipah. L.G. Saw, S. Zona & C.E. Lewis, FRI 48154 (Holotype KEP; isotypes FTG, K, L). So far, the species is only known from the type locality.

HABITAT. Lowland dipterocarp forest. The species formed scattered colonies of individuals on the upper slopes and ridges of a lowland dipterocarp forest. Here they were found in large numbers, becoming one of the common understory palms of the forest floor. Individual shoots were spaced rather widely apart. The species was absent from the lower slopes or in valleys.

NOTES. A very distinctive *Pinanga*, like no other species in Malaya. The species looks superficially like *Pinanga tenacineris* J. Dransf. from Sarawak; however, the long stolons and the longer leaflets found in the new species distinguish it from the latter. Furthermore, *P. sarmentosa* has a thinner textured frond than *P. tenacineris*; the former has red rachillae, ellipsoid fruits, c. 13×8 mm, maturing black, while the latter has green rachillae with fusiform fruits, c. 12×4 mm that will mature crimson (Dransfield 1980).

Acknowledgments

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LITERATURE CITED

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- LIM, C.K. 2001. Unravelling *Pinanga* Blume (Palmae) in Peninsular Malaysia. Folia Malaysiana 2(4): 219–276.

4. *Pinanga sarmentosa*, close-up of crownshaft and infructescence.

